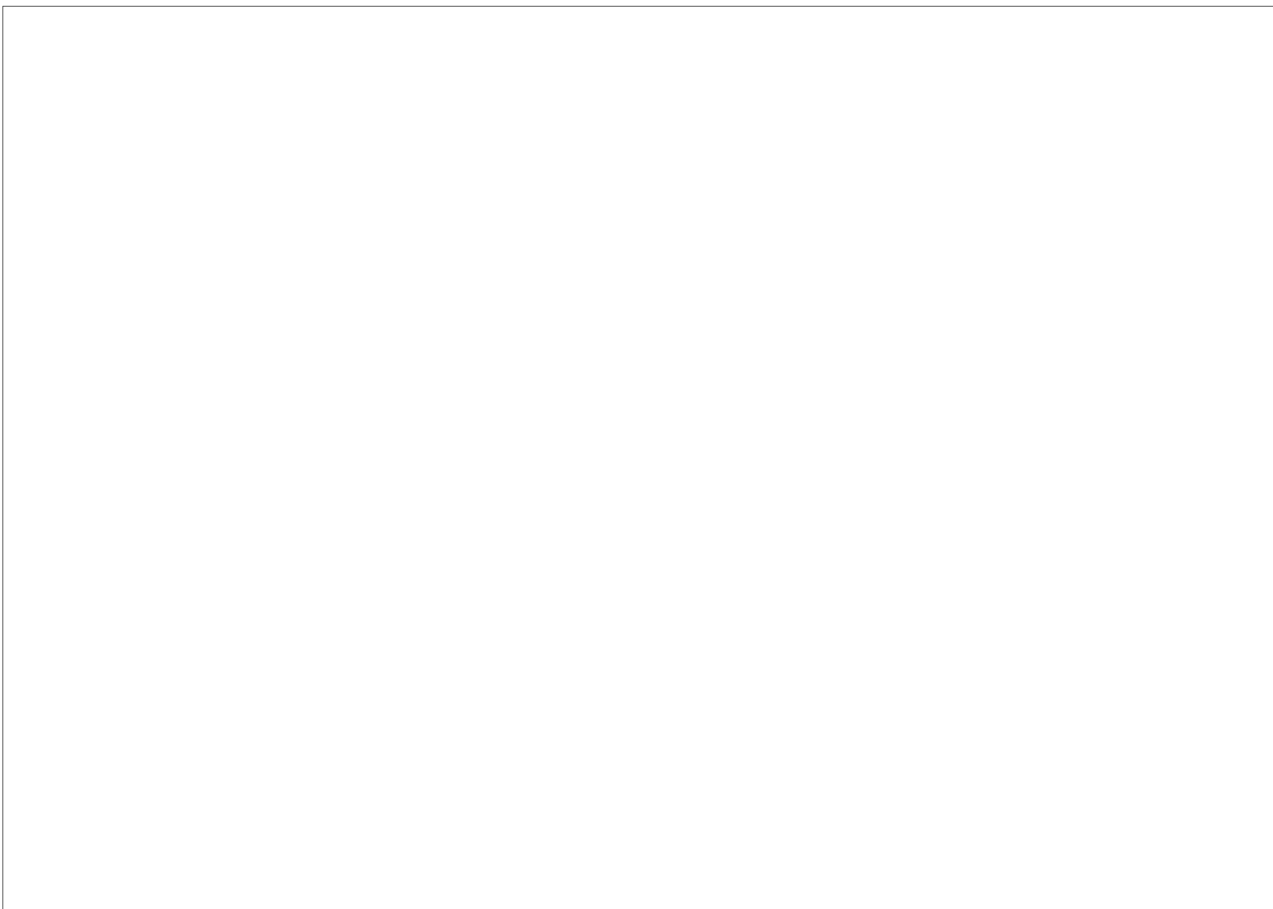


**RATIONALE FOR NATIONAL SPACE POLICY REVISION  
(Rev. A)**

- NSDD-42 no longer adequately reflects the Administration's space policy. Partial attempts in the past two years at eliminating discrepancies are insufficient. Congress and public push for revision; even though long range U.S. space goals are to remain unchanged, the national space policy needs to be reformulated.

- The reasons for recommending a new, comprehensive policy reformulation are as follows:

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## 2. Changed national perceptions

- Popular and Congressional support can no longer be taken for granted; concrete justifications for large space undertakings (e.g. space station) are increasingly required.
- Congressional and public confidence in the competency and motivations of major participants (policy makers, implementing agencies, contractors) undermined by events.
- Space "leadership" by the U.S., the major theme of current national space policy, is being perceived by the domestic and foreign public as less than fully credible, unless supported by purposeful, vigorous and visible actions. These must be guided by the revised national space policy.
- Confusion about "militarization" of space; important Congressional and public groups apparently still believe that military space applications can, in whole or in part, be prohibited or that their roles are not critical to U.S. security.
- U.S. exploitation of space for scientific purposes is far below our potential capability. Science community support not uniformly behind NASA space plans, to the extent that these have been firmly defined. Cancellation and deferrals of planned missions and budget cuts help fund infrastructure initiatives, prevent a coherent program, drive researchers to other fields, and encourage other nations not to rely on U.S. plans. Space infrastructure development initiatives are seen by some as threats to scientific missions.
- Strong resistance to nuclear devices in space (additional effects of COSMOS/Challenger/Chernobyl reactions) but these are required for several important programs, both scientific and military.

### 3. National Commission on Space report

- Publicized by the NCOS in April/May 1986 as the nation's long-term blueprint for leadership in, and conquest of, space for the next century; no consideration given to competing national goals; budget constraints not seriously considered. Should be used as a guide for technology investment to keep our options open (See Evaluation Report enclosed).

### 4. CHANGED SHUTTLE REALITIES

- The shuttle program is still seen and pursued by some as a transportation system, rather than a research tool.
- Launch costs increase as launch rates decrease; launch rates may remain constrained in the future by safety considerations.
- Shuttle competes with unmanned systems, rather than being planned as a manned complement.

### 5. Progress on space launch capability recovery and growth may prove to be grossly inadequate

- Current recovery plan is budget constrained.
- STS recovery schedule and performance projections are fraught with contingencies; no alternatives in space programs uniquely dependent on the shuttle.
- Long-term space launch and transportation architecture unavailable; apparent lack of long-term investment strategy.
- Cooperation between the implementing agencies in developments and joint use of national space launch assets is inadequate.

## 6. Initiative and progress on the SDI

- The SDI project has reached a stage where in orbit testing and initial deployment are seriously being considered for the 1993-1995 period and beyond. This will require substantially increased payload capacity in orbit and possibly human presence for assembly integration and test. At this point the only launcher program defined to satisfy this need is the Air Force's Advanced Launch System (ALS).

## 7. Manned Space Missions

- The major U.S. manned space program, the Manned Space Station is being subjected to public controversy and criticism.
- The science community is divided on the potential usefulness of the Space Station.
- Budget and management problems are under an independent review.
- The Military vs. Civilian role, as well as international management/operating decisions are still being debated.
- The potential of manned military space missions is to be explored as per new DoD policy.

## 8. Foreign thrusts toward competition

- Allies possessing advanced scientific and industrial capabilities no longer automatically accept U.S. leadership --- full reciprocity is expected. In the vigorously competitive areas: launcher, launch services, payload manufacture and servicing, the U.S. may not come out ahead, unless its rate of technical advance is much increased.
- The launch services market and the development of future space-based commercial activities are a potential source of revenue, export opportunities and prestige.
- There is no clear-cut separation between commercial, science/civil and national security-related space activities in foreign programs.

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9. Space cooperation: A competitive foreign policy tool

- Allies and nonaligned nations are being attracted by Soviet offers of cooperation, undertaken for political reasons. This should be vigorously countered.
- Major nonaligned nations play both sides; there is possible interplay with weapon capability developments.
- U.S. no longer has sole prestige or monopoly in offering space cooperation to LDC's. Within the next decade, other space-capable industrialized nations will become offerors.

10. Technology Opportunities

- Several technology breakthroughs on the horizon: the hypersonic ramjet, with both space and air-transportation potential for military, as well as commercial applications; focused-beam weapons; adaptive optics --- none of these will indefinitely remain the exclusive advantage of the U.S.
- Applications expected in domains other than communications and navigation. Potential economic impact on weather prediction, resources surveillance, air and maritime traffic control. Space-based manufacturing is lagging behind expectations, needs low-cost, reliable access, long-duration manned missions and increased influx of private capital.

11. Space Activities Face Severe Budget Pressures

- Composite national security, civil and commercial endeavors may not be supportable by realistic budget projections.
- Priorities largely developed by implementing agencies.
- Shuttle, Space Station, Heavy Lift Launcher funding peaks.
- No contingency reserves of contingency investments at the national level.

**12. New Emphasis on Private Investment, Venture Capital**

- As the shuttle "monopoly" is no longer pervasive, private industry considers risking capital in order to develop low-cost space launch and transportation. There is an opportunity for the Government to stimulate the creation of a whole new industry -- possibly leading to world preeminence - to capture the launch vehicle and services market (Cf. Air-transportation industry).
- Major elements of space transportation constitute infrastructural assets, therefore possibly subject to long-term capital investment. This may lead to attractive financing alternatives.

**13. Need for Reassessing the National Decision Mechanisms**

- Divergence between the President's goals, the broad vision of the NCOS and the interests represented by the Interagency "decision" mechanisms.
- Repeated demonstration of inability of the current Interagency mechanisms to respond in timely manner to unfolding events --- (Cf. possible soviet surprise).
- Periodic Congressional and public demand for "blue ribbon" panels and other types of outside intervention in the planning process.

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